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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,202	02/24/2004	Makoto Muramatsu	249226US3	9262

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EXAMINER

LAMB, BRENDA A

ART UNIT PAPER NUMBER

1734

DATE MAILED: 07/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/784,202

Applicant(s)

MURAMATSU ET AL.

Examiner

Brenda A. Lamb

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/8/2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7-9,12-16 and 18-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5,7-9,16 and 18-21 is/are allowed.
- 6) ☒ Claim(s) 1,2 and 12 is/are rejected.
- 7) ☒ Claim(s) 3,4 and 13-15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-2 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 2001-038272 in view of Tateyama et al.

Japan '272 teaches the design of a process liquid supply nozzle, comprising a substantially tubular nozzle 134 provided with a discharge port 133 for discharging a process liquid, a nozzle holder which includes attachment components 135 provided with a through-hole into which the nozzle can be inserted, and a free space formed between an inner circumferential surface of the nozzle holder and an outer circumferential surface of the nozzle, at least a prescribed cleaning liquid being supplied into the free space, such that the process liquid is discharged from the discharge port of the nozzle under the state that the discharge port of the nozzle protrudes downward

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from the through-hole, and the nozzle is cleaned with a cleaning liquid under the state that the nozzle is housed in the nozzle holder. Japan '272 fails to teach the nozzle holder is substantially bowl-shaped. However, it would have been obvious matter of design to provide the Japan '272 nozzle holder with a substantially bowl shape since such a modification would have involved a mere shape of a component (see *In re Dailey*, 149 USPQ 47). Further, Japan '272 fails to teach a means for relatively moving the nozzle holder and the nozzle in a vertical direction. However, it would have been obvious to modify the Japan '272 nozzle by substituting its support arm with another support arm movable in XYZ directions such as shown by Tateyama et al which includes movement in the vertical direction relative to another component of the system such the substrate or wafer for the obvious advantage of greater control of the process. Thus claim 1 is obvious over the above cited references. With respect to claim 2, it would have been obvious given the modifications of the Japan '272 nozzle as discussed above that the free space between the inner circumferential surface of the nozzle holder and an outer circumferential surface of the nozzle is capable of accepting gas in combination with the liquid from its supply means since the free space defined by walls of the above cited structural elements is capable of accepting and containing a variety of fluids therein including a liquid or a combination of gas and liquid. With respect to claim 12, the same rejection applied to claim 1 is applied here. Japan '272 teaches process liquid supply mechanism for supplying the process liquid into the nozzle; a cleaning liquid supply mechanism for supplying a prescribed cleaning liquid into the free

space for cleaning the nozzle. Japan '272 teaches the nozzle is cleaned with the cleaning liquid under the state that that nozzle is housed in the nozzle holder.

Applicant's arguments filed 5/08/2006 have been fully considered but they are not persuasive.

Applicant's argument that Tateyama et al and Japan '272 fails to teach or render obvious the claimed feature of a means for moving a nozzle holder relatively to a nozzle in a vertical direction or the nozzle relative to a nozzle holder is found to be non-persuasive since it is not commensurate in scope with claim limitation which claim a means for relatively moving the nozzle holder and the nozzle in a vertical direction or a nozzle moving mechanism for relatively moving the nozzle and nozzle holder in a vertical direction which broadly reads on means for moving the nozzle holder and the nozzle in a vertical direction relative to another component of the system such the substrate. Therefore, it would have been obvious to modify the Japan '272 nozzle by substituting its support arm with another support arm movable in XYZ directions such as shown by Tateyama et al which includes movement in the vertical direction relative to another component of the system such the substrate or wafer for the obvious advantage of greater control of the process

Claims 5,7-9,16 and 18-21 are allowed.

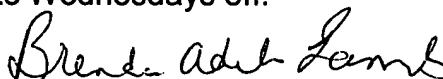
Claims 3-4 and 13-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Brenda A. Lamb at telephone number (571) 272-1231. The examiner can normally be reached on Monday-Tuesday and Thursday-Friday with alternate Wednesdays off.



Brenda A Lamb
Examiner
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